

## **REMARKS**

Claims 1-57 are pending in the above referenced application. In the Office Action mailed March 4, 2005, the Examiner contends that Claims 4 and 9 are identical and that correction is required. The specification's Brief Description of the Drawings stands objected to due to various  
5 alleged informalities. Claim 5 also stands objected to various alleged informalities. In addition, Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Blair et al. (U.K. Patent Application No. GB 2 365 988) ("Blair '988"). Claims 3-4 and 6-10 stand  
objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the vase claim  
10 and any intervening claims. Finally, Claims 11-57 are allowed.

After a careful review of the currently pending claims, the Blair '988 reference, and Applicant's proposed claim clarifications, Applicants respectively request reconsideration in view of the following remarks and clarifications.

### **I. CLAIM OBJECTIONS**

15 Claim 5 stands objected to due to various alleged informalities. Corrections have been made to overcome these informalities.

### **II. OBJECTION TO APPLICANT'S SPECIFICATION**

The Specification has been objected to due to various alleged informalities. Corrections have been made to overcome these informalities.

### **II. 35 U.S.C. § 102(b) REJECTIONS**

20 Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Blair et al. (U.K. Patent Application No. GB 2 365 988). ("Blair '988"). Applicants respectively traverse.

Applicants' presently claimed invention is generally directed to a MEM apparatus comprising an abrasion resistive contact that is preferably deposited along a contact area of the MEM device. Applicant's Figure 13(a) illustrates a processing step for fabricating the MEM device illustrated in Figure 2. Figure 13(a) represents a side view of the two arm lever mechanism after the rib 118 has been etched. Preferably, rib 118 has been etched along the entire length of the lever mechanism as illustrated in Figure 11 but this is not necessary. Shorter rib lengths may also be used. Figure 13(a) includes a substrate structure 130 wherein an adhesion layer 132 is deposited over the top surface of the sacrificial layer 82. Preferably, this adhesion layer 132 comprises 100 to 200 Angstroms of Ta, Cr, TiW, or other like adhesion layer component. After depositing the adhesion layer 132, approximately 7 microns of a metallic layer 134 is deposited along this etched out cantilever rib. Preferably, this metallic layer 134 comprises copper, gold, or other like metal. Alternatively, this metallic layer 134 comprises a metallic composition that includes a combination such as Cu/TaN, Cu/Diamond, or Diamond/Cu. (Applicant's Specification paragraph 78 at p. 24).

Applicants have clarified Independent Claim 1 to now expressly recite "a diamond material disposed along a surface of said micromachined structure, said diamond material defining an abrasion resistive contact area." Blair '988 fails to anticipate clarified Independent Claim 1.

Rather, Blair '988 appears generally directed to a micro electro-mechanical device that comprises a vertical micro-mirror 14. Blair '988 states that this micro-mirror 14 is coupled to an electrostatic comb drive actuation mechanism for tilting the mirror about a vertical axis. (Blair '988, Abstract). Blair '988 further states that "[t]o increase the reflectivity of the vertical mirror

the silicon is coated with a thin layer of aluminum, gold, or diamond using chemical vapor deposition.” (Blair ‘988) (emphasis added). Consequently, Blair does not teach a MEM apparatus comprising an abrasion resistive contact that is preferably deposited along a contact area of the MEM device.

5 To anticipate a claim, “each and every element set forth in the claim [must be] found, either expressly or inherently described, in a single . . . reference.” *Vergall Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (M.P.E.P. Section 2131). Consequently, since Blair ‘988 does not teach or suggest “diamond material defining [a] . . . contact area,” Blair ‘988 simply also does not teach or suggest “diamond material defining an abrasion resistive  
10 contact area.” Blair ‘988 therefore does not to teach every element of the claimed invention and, therefore does not anticipate clarified Independent Claim 1.

Consequently, Independent Claim 1 is allowable for at least all of the reasons stated above. The remaining rejected claim 2 is dependent on allowable Independent Claim 1 and is therefore allowable for at least the reasons states above.

## 15 VI. SUMMARY

In view of the remarks above, Applicants’ respectfully submit that the present application is in condition for allowance and solicits action to that end. If there are any additional matters that may be resolved or clarified through a telephone interview, the Examiner is respectfully requested to contact Applicant’s undersigned representative.

If for any reason, the application is not considered to be in condition for allowance on the next Office Action and an interview would be helpful to resolve any remaining issues, the Examiner is requested to contact the undersigned attorney at (312) 913-0001.

Respectfully submitted,

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By:



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